Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Leather Tanning Practices for Professionals

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 243683 · NQF Level 2 · 36 Credits · 33 Days

COURSE OVERVIEW

This course equips leather industry professionals with advanced knowledge and practical skills to apply tanning practices effectively. Participants will learn to select appropriate tanning agents, manage processing parameters, and ensure quality outcomes in leather production. The training aligns with SAQA unit standard 243683, focusing on safe and efficient tanning operations.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	243683
Accreditation	SAQA Accredited · NQF Level 2 · 36 Credits
Duration	33 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS — verifiable online

LEARNING OUTCOMES

- Apply tanning agents and chemicals according to standard operating procedures.
- Analyze leather quality and adjust tanning parameters to meet specifications.
- Evaluate environmental and safety hazards in tanning processes and implement controls.
- Demonstrate proper handling and storage of tanning materials and finished leather.
- Implement quality assurance checks during and after tanning.
- Document tanning processes and outcomes for compliance and traceability.

WHO SHOULD ATTEND

- This course is designed for leather technicians, production supervisors, and quality control personnel working in tanneries or leather processing facilities.
- It is also suitable for professionals seeking to formalize their skills in leather tanning practices.

COURSE OUTLINE

Day 1: Introduction to Leather Tanning

- Overview of leather tanning industry
- Types of raw materials: hides and skins
- Basic chemistry: proteins, pH, and tanning agents
- Safety equipment and procedures
- Environmental considerations

Day 2: Raw Material Handling and Storage

- Receiving and grading raw hides
- Preservation techniques: wet-salting, dry-salting
- Common defects: cuts, holes, grain damage
- Storage conditions: temperature, humidity
- Inventory management

Day 3: Beamhouse Operations – Soaking and Liming

- Beamhouse workflow overview
- Soaking: rehydration, dirt removal
- Liming: hair removal, swelling, opening up fiber structure
- Chemicals used: lime, sodium sulfide
- Process control parameters: time, temperature, pH

Day 4: Beamhouse Operations – Deliming, Bating, and Pickling

- Deliming: removal of lime, pH adjustment
- Bating: enzymatic treatment for softness
- Pickling: acidification with salt and acid
- Process sequence and timing
- Quality checks: pH, cross-section test

Day 5: Tanning Basics – Vegetable Tanning

- History and chemistry of vegetable tanning
- Tanning agents: bark, leaves, fruits (e.g., quebracho, mimosa
- Tanning process: pit tanning, drum tanning
- Factors affecting tanning: concentration, temperature
- Properties: firmness, color, aging

Day 6: Chrome Tanning

- Chromium salts: basic chromium sulfate
- Chrome tanning process: pickling, tanning, basification
- Chrome uptake: influence of temperature, time
- Fixation and washing
- Advantages: speed, softness, hydrothermal stability

Day 7: Other Tanning Methods

- Synthetic tanning (syntans
- Aldehyde tanning (glutaraldehyde, oxazolidine
- Combination tanning: chrome-vegetable, chrome-synthetic
- Oil tanning (chamois leather

- Environmental and health considerations

Day 8: Post-Tanning Operations – Sammying, Splitting, and Shaving

- Sammying: mechanical dewatering
- Splitting: cutting into layers (grain, split
- Shaving: thickness adjustment
- Equipment: sammying machine, splitter, shaver
- Quality control: thickness measurement

Day 9: Retanning, Dyeing, and Fatliquoring

- Retanning: purpose and agents (syntans, vegetable
- Dyeing: aniline, semi-aniline, pigment finishes
- Fatliquoring: oils, emulsifiers, application
- Process sequence and drum operation
- Effect on leather properties: fullness, grain tightness

Day 10: Finishing Operations – Surface Preparation

- Finishing overview: protection, aesthetics
- Buffing: grain correction, nap creation
- Sanding: smoothing, adhesion promotion
- Base coats: binders, pigments
- Defect repair: filling, spraying

Day 11: Finishing – Coating and Effects

- Coating materials: solvent-based, water-based
- Application methods: spray, roller, curtain coating
- Top coats: gloss, matte, protection
- Embossing: patterns, grain simulation
- Plating: flattening, ironing

Day 12: Quality Control and Testing

- Physical tests: tensile, tear, stitch tear
- Chemical tests: pH, chromium content, fat content
- Color fastness: to light, rubbing, water
- Water resistance: Maeser, Bally penetrometer
- Statistical process control

Day 13: Environmental Management in Tanning

- Pollution sources: wastewater, solid waste, air emissions
- Wastewater treatment: primary, secondary, tertiary
- Solid waste: sludge, hair, trimmings – reuse/recycle
- Air emissions: control of H2S, ammonia
- Regulatory framework: NEMA, water use licences

Day 14: Health and Safety in the Tannery

- Chemical hazards: acids, alkalis, chromium
- Physical hazards: machinery, wet floors
- PPE: gloves, goggles, aprons, boots
- Safety data sheets (SDS
- Emergency procedures: spill containment, first aid

Day 15: Process Optimization and Troubleshooting

- Common defects: grain cracking, looseness, spots
- Root cause analysis: process parameters, raw materials
- Recipe optimization: chemical dosage, time, temperature
- Process control charts
- Case studies of troubleshooting

Day 16: Automation and Technology in Tanning

- Drum automation: PLC control, recipe management
- Process monitoring: pH, temperature, time
- Data logging and analysis
- Robotics in finishing
- Future trends: digital twins, AI

Day 17: Leather Grading and Classification

- Grading criteria: grain quality, defects, thickness
- Classification: full grain, corrected grain, split
- Market segments: footwear, upholstery, automotive
- Standard grading systems (e.g., Tanners' Council
- Documentation and traceability

Day 18: Supply Chain and Logistics

- Supply chain stages: hide sourcing, tanning, finishing
- Inventory management: FIFO, storage conditions
- Packaging: wrapping, palletizing
- Transportation: containers, climate control
- Export documentation: certificates of origin

Day 19: Business and Sustainability in Tanning

- Business models: contract tanning, branded products
- Sustainability: water, energy, chemical reduction
- Certifications: Leather Working Group (LWG), ZDHC
- Cost analysis: raw materials, chemicals, labor
- Corporate social responsibility

Day 20: Course Review and Assessment

- Summary of beamhouse, tanning, finishing
- Review of quality control and troubleshooting
- Assessment: written exam and practical demonstration
- Process improvement project presentations
- Course evaluation and certification

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **36 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 94,700.00	**R 94,700.00**
1	In-House	R 123,100.00	**R 123,100.00**
1	On-Campus (Pretoria)	R 142,000.00	**R 142,000.00**

UPCOMING SESSIONS

Start	End	Method	Venue
04 Aug 2026	17 Sep 2026	On-Campus	Mauritius
05 Aug 2026	18 Sep 2026	On-Campus	Cape Town, South Africa
06 Aug 2026	21 Sep 2026	On-Campus	Dubai, UAE
07 Aug 2026	22 Sep 2026	On-Campus	Pretoria, South Africa
07 Aug 2026	22 Sep 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	23 Sep 2026	On-Campus	Durban, South Africa
10 Aug 2026	23 Sep 2026	On-Campus	Mauritius
11 Aug 2026	24 Sep 2026	On-Campus	Cape Town, South Africa

Contact us if no suitable date is listed — on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit **www.aaticd.co.za**, open the page for this course (Unit Standard 243683) and click **Get A Quote / Apply**. Select your training method and number of delegates — your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to **apply@aaticd.co.za** — our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call **+27 12 004 8389** or WhatsApp **+27 65 077 6310** and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically — the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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